

**SPECIAL
POINTS OF
INTEREST:**

- **U.S. Measles Outbreak**
- **Newborn Hepatitis B Vaccination**
- **Guidance on the Use of Rotavirus, Kinrix, and Pentacel Vaccines**

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Measles Resurgence

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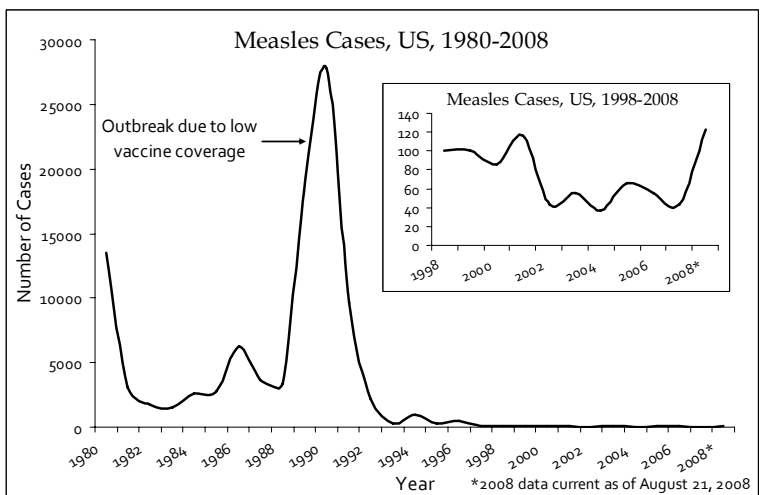
Measles is a serious viral illness characterized by a generalized maculopapular rash that begins on the face and extends to the body and extremities over several days. The rash usually appears about 14 days after exposure and is usually accompanied by a high fever (103°-105°) and at least one of the following symptoms: cough, coryza, or conjunctivitis. Koplik spots, blue-white spots that generally develop on the inside of the mouth, are a characteristic sign of measles disease. Complications such as diarrhea, otitis media and pneumonia occur most frequently in children under five years of age and adults over 20 years of age and are seen in approximately 30% of all measles cases.

A major outbreak of measles in the United States has been ongoing since the beginning of 2008, with 123 cases of measles officially reported to the Centers for Disease Control and Prevention (CDC) as of August 15, 2008. From 2000-2007, an average of 50 cases of measles was reported annually. Sixteen states have reported cases associated with the outbreak, and many more states have experienced exposures to cases, including Utah. Nearly all the cases have been unvaccinated, either by personal choice or because they are too young to receive the vaccine. Their exposure can be traced to measles

virus imported into the United States from elsewhere in the world. The last case of measles reported in Utah was in 2002. Other Utah measles outbreaks resulted in 118 cases in 1996 and 136 cases in 1994.

Because measles is so rare in the United States, most physicians have never seen a case. This makes diagnosis at the time of initial presentation to a clinician difficult. A reliable diagnosis of measles requires a strong description of the clinical course of illness, as well as detailed patient history. Serologic testing for measles is available in Utah, but because of the serious public health threat of measles, a diagnosis should never wait for laboratory confirmation. Unvaccinated patients exposed to a measles case may receive one dose of the MMR within 72 hours of exposure or an immune globulin within six days of exposure to reduce the possibility of measles onset. Measles can be prevented by the administration of two doses of Measles, Mumps, Rubella (MMR) vaccine at 12-15 months and 4-6 years of age.

Measles is a reportable disease in Utah. The Utah Department of Health has recently developed resources to assist clinicians in the diagnosis and management of measles. Clinicians are encouraged to become familiar with the signs and symptoms of measles and the resources available on the Utah Department of Health website: <http://health.utah.gov/epi/diseases/measles>. ■





“Utah ranked as one of the top states at 70.6% for the percentage of infants receiving their 1st dose of Hepatitis B vaccine within one day of birth.”

Newborn Hepatitis B Vaccination

To measure hepatitis B vaccination coverage during the neonatal period, the Centers for Disease Control and Prevention (CDC) analyzed data from the 2006 National Immunization Survey (NIS). This report summarizes the results of this analysis and provides national, state, and local data on vaccination coverage for infants who received the hepatitis B vaccine during the first days of life.

The findings reveal that, during January 2003-June 2005, before implementation of the 2005 ACIP hepatitis B vaccine recommendation, the national newborn hepatitis B vaccination coverage estimate was 42.8% at age one day; 48.5% at two days; 50.1% at three days; 51.1% at four days, 51.8% at five days, and 52.5% at six days. State and local

area rates showed substantial variability, with hepatitis B vaccination coverage at age one day ranging from 8.2% in Fresno County, California, to 77.5% in Detroit, Michigan. Utah ranked as one of the top states at 70.6% for the percentage of infants receiving their first dose of Hepatitis B vaccine within one day of birth.

Delivery hospitals should provide hepatitis B vaccination of newborns as a standard of care to comply with ACIP recommendations and increase coverage. □

Read full article at http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5730a3.htm?s_cid=mm5730a3_e.

Safety of HPV Vaccination

On July 22, 2008, the Federal Drug Administration (FDA) and the Centers for Disease Control and Prevention (CDC) updated the information about the safety of the human papillomavirus (HPV) vaccine (Gardasil [Merck]) that is posted on their respective websites. The vaccine has recently received media attention because consumers, parents, and others have raised questions about its safety.

The FDA and the CDC closely monitor the safety of all vaccines through the [Vaccine Adverse Event Reporting System \(VAERS\)](#). VAERS receives unconfirmed reports of possible side effects following the use of Gardasil and all vaccines licensed in the U.S. VAERS reports are regularly reviewed for safety concerns or trends of adverse events (possible side effects).

To date, the manufacturer, Merck and Co., has distributed over 16 million doses of Gardasil in the United States. Given the large number of doses distributed, it is expected that, by chance alone, serious adverse events and some deaths will be reported in this large population during the time period following vaccinations. Monitoring and analysis of reports, including in-depth medical review, are designed to detect serious events that occur at rates greater than expected, compared to what would be expected by chance alone. As of June 30, 2008, there have been 9,749 VAERS reports of adverse events following Gardasil vaccination. Of these, 94% were classified as reports of non-serious events, and 6% as serious events.

Non-serious reports include syncope (fainting), pain at the injection site, headache, nausea and fever. Fainting is common after injections and vaccinations, especially in adolescents. Falls after syncope may sometimes cause serious injuries, such as head injuries, which can be prevented with simple steps, such as keeping the vaccinated person seated for up to 15 minutes after vaccination.

As of June 30, 2008, 20 deaths included in the serious reports had been reported to VAERS. There was not a common pattern to the deaths that would suggest they were caused by the vaccine. In cases where autopsy, death certificate and medical records were available, the cause of death was explained by factors other than the vaccine.

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Guidance on the Use of RotaRix[®], Kinrix[®], and Pentacel[®] Vaccines

RotaRix[®] is an oral rotavirus vaccine manufactured by GlaxoSmithKline and licensed in April 2008. It is recommended for infants at 2 and 4 months of age. Kinrix[®] is a combination DTaP/IPV vaccine manufactured by GlaxoSmithKline and licensed in June 2008. It is recommended for infants 4 through 6 years of age. Pentacel is a combination Hib/DTaP/IPV vaccine manufactured by Sanofi Pasteur and licensed in June 2008. It is recommended for infants at 2, 4, 6, and 15-18 months of age. The following charts contain information regarding appropriate vaccine use.



Rotarix Vaccine (Rota)

1 mL live, oral Rotavirus Vaccine
USIS Vaccination Type Code: 119
CPT Code: 90681

	Recommended Age	Minimum Age	Maximum Age	Recommended Interval	Minimum Interval
Dose 1	2 months	6 weeks	20 weeks*	—	—
Dose 2	4 months	10 weeks	24 weeks**	2 months	4 weeks

*Series can be started as early as 6 weeks of age and as late as 20 weeks of age.

**Series must be completed by 24 weeks of age. RotaRix should not be administered after maximum age.

HARMONIZED SCHEDULE FOR ROTARIX[®] AND ROTATEQ[®]

The Advisory Committee on Immunization Practices (ACIP) developed new provisional recommendations for use of rotavirus vaccine. The first dose of either vaccine should be administered from age 6 weeks through age 14 weeks 6 days. Vaccination should not be initiated for infants 15 weeks of age or older. The minimum interval between doses of rotavirus vaccine is 4 weeks. All doses should be completed by 8 months of age.

NOTE: IF ANY DOSE IN SERIES IS ROTATEQ, FOLLOW THE 3-DOSE SCHEDULE.

Special Considerations:	Storage & Handling of Vaccine:
<ul style="list-style-type: none"> • <u>Give vaccine first</u> 	<ul style="list-style-type: none"> • Refrigerate between 2° - 8° C (35° - 46° F)
<ul style="list-style-type: none"> • Do not repeat if infant spits up or regurgitates vaccine 	<ul style="list-style-type: none"> - Do not freeze or expose to freezing temperatures
<ul style="list-style-type: none"> • Recommended for premature infants if: <ul style="list-style-type: none"> - 6 weeks of age - Discharged from hospital - Clinically stable 	<ul style="list-style-type: none"> • Keep away from light <ul style="list-style-type: none"> - Best to store in original packaging
<ul style="list-style-type: none"> • Delay if infant is suffering from acute diarrhea or vomiting 	

—See prescribing information for complete details—

Visit <http://www.cdc.gov/vaccines/pubs/downloads/pentacel-guidance.pdf>
for alternative schedules

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Utah Statewide Immunization Information System

TeleVox Immunization Reminder Service

The USIIS-TeleVox immunization reminder service will commence mid-September.

The automated telephone call service will not operate on Sundays or Monday evenings.

A USIIS patient record's phone number will not be called during consecutive months. If the patient remains overdue two months after the original reminder, another reminder call will be placed.

Expediting USIIS Customer Support

When you contact the Help Desk to report a USIIS problem, please provide the below information, as applicable.

USIIS functionality issue:

- ◆ Feature or function—e.g., Patient Search, Forecast Report, Immunization screen, etc.
- ◆ Description of when and how the problem occurred—including a scenario or sample patient.

Patient record issue:

- ◆ USIIS ID
- ◆ Patient ID
- ◆ Patient name
- ◆ Patient birth date
- ◆ Type and date of missing immunizations—if applicable
- ◆ Description of the problem with the patient record.

Providing such details will enable the USIIS team to more effectively assist you.

USIIS Welcomes New Users

Providers:

Westside Medical, Clearfield
Copperview Medical Center, South Jordan
Morgan Health Center
Mountain View Family Medicine, Elk Ridge
Mountain West Pediatrics, Tooele
Exodus Healthcare, West Valley City

In addition to the providers listed, there were 11 child care facilities and 16 schools enrolled in USIIS.

For more information on enrolling in USIIS, contact the Utah Immunization Program, Provider Relations, at 801-538-9450.

Data Interfaces

University of Utah Clinics began populating USIIS with patients of all ages, with immunizations dating back to 2000.

Public Health Information Network (PHIN)

Chris Pratt, the USIIS Technical Manager, presented **Teaching Computers to Match Patient Records Like A Human** at the August 2008 PHIN Conference. The presentation highlighted the innovative record matching algorithm implemented in USIIS during December 2007. For a copy of the presentation or more information about USIIS, contact Nancy McConnell, nmccConnell@utah.gov.

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Safety of HPV Vaccination

Guillain-Barré Syndrome (GBS) has also been reported in individuals following vaccination with Gardasil. GBS is a rare neurological disorder that causes muscle weakness. To date, there is no evidence based on GBS reports submitted to VAERS that Gardasil has increased the rate of GBS above that expected in the population, nor is there evidence to suggest an association between Gardasil and GBS.

Thromboembolic disorders (blood clots) have been reported to VAERS in people who have received Gardasil. Most of these individuals had risk factors for blood clots, such as use of oral contraceptives, which are known to increase the risk of clotting. Thromboembolic disorders as well as other medical events are being studied through the VSD in previously planned controlled studies. The manufacturer has also committed to conduct a large post-marketing study to further assess the vaccine's safety.

Based on the review of available information by FDA and CDC, Gardasil continues to be safe and effective, and its benefits continue to outweigh its risks.

CDC has not changed its recommendations for the use of Gardasil. FDA has not made any changes to the prescribing information for how the vaccine is used or to the vaccine's precautions. In addition, FDA routinely reviews manufacturing information, and has not identified any issues affecting the safety, purity and potency of Gardasil. □

References:

http://www.cdc.gov/vaccinesafety/vaers/FDA_and_CDC_Statement.htm
<http://www.fda.gov/cber/safety/gardasil071408.htm>

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Dosing Schedules

Kinrix Vaccine (DTaP/IPV)
 .5 mL Injectable (IM) Combination Vaccine
 USIIS Vaccination Type Code: I30
 CPT Code: 90696

	Recommended Age	Minimum Age	Maximum Age	Recommended Interval	Minimum Interval
Dose 1	4-6 years	4 years	6 years*	—	—

*For children who completed the primary series with Infanrix or Pediarix

Special Considerations:	Storage & Handling of Vaccine:
<ul style="list-style-type: none"> Administer intramuscular ONLY 	<ul style="list-style-type: none"> Refrigerate between 2° - 8° C (35° - 46° F) - Do not freeze or expose to freezing temperatures
<ul style="list-style-type: none"> Indicated for the 5th DTaP and 4th Polio boosters* 	
<ul style="list-style-type: none"> Progressive neurological disorder is a contraindication 	<ul style="list-style-type: none"> Best to store in original packaging
<ul style="list-style-type: none"> Precautions for GBS, latex, seizures, prior adverse events 	<ul style="list-style-type: none"> Use immediately after removal from the refrigerator

Pentacel Vaccine (DTaP/Hib/IPV)
 .5 mL Injectable (IM) Combination Vaccine
 USIIS Vaccination Type Code: I20
 CPT Code: 90698

	Recommended Age	Minimum Age	Maximum Age	Recommended Interval	Minimum Interval
Dose 1	2 months	6 weeks	4 years	—	—
Dose 2	4 months	10 weeks	4 years	2 months	4 weeks
Dose 3	6 months	14 weeks	4 years	2 months	4 weeks
Dose 4	15-18 months	12 months	4 years	6 months	6 months

Special Considerations	Storage & Handling of Vaccine
<ul style="list-style-type: none"> Administer intramuscular ONLY 	<ul style="list-style-type: none"> Refrigerate between 2° - 8° C (35° - 46° F) - Do not freeze or expose to freezing temperatures
<ul style="list-style-type: none"> Recommended for premature infants - 6 weeks of age - Discharged from hospital - Clinically stable 	
<ul style="list-style-type: none"> Progressive neurological disorder is a contraindication 	<ul style="list-style-type: none"> Use immediately after reconstitution

—See prescribing information for complete details—

Vaccine Management Tips

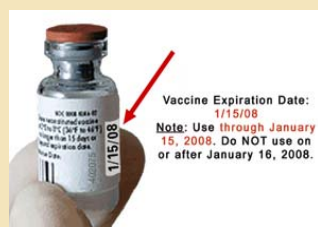
Tips to Manage Vaccine Inventories

Stock Rotation

- The vaccine coordinator should ensure that someone rearranges the placement of vaccine and diluent supplies according to the expiration dates on a **weekly basis and each time a vaccine shipment arrives**.
- The vaccine boxes with the earliest expiration dates should be placed in front of other same type vaccine boxes with later expiration dates. This practice avoids waste by ensuring that vaccines and diluents with the shortest expiration dates are easily accessible and will be used first.
- Expired vaccine and diluent should never be administered. Promptly remove expired vaccines from the refrigerator or freezer to avoid accidental use.

Interpreting Expiration Dates of Different Products

- The vaccine or diluent may be used on or before the expiration date. When the expiration date is marked with only a month and year, the vaccine or diluent may be used up to and including the last day of the month indicated on the vial.



- Multidose pre-mixed vaccine vials contain bacteriostatic agents that prevent the growth of bacteria. These vaccines can be used until the date of expiration printed on the vial unless they become contaminated.
- Single-dose vials are meant for one-time use only. Once the protective caps on single-dose vials have been unsealed, it may not be possible to determine if the rubber seals have been punctured. Therefore, do not open single-dose vials until you are ready to use them. To avoid vaccine wastage, **always check the vial before removing the cap to make sure you have the correct vaccine type, and remove the cap only when you are ready to draw up and administer the vaccine**. Single-dose vials without protective caps should be discarded at the end of the clinic day.



- Once lyophilized (freeze-dried) vaccines have been reconstituted, they must be used within a specified time frame or discarded. **Refer to the product insert for the most up-to-date information about expiration times and dates following reconstitution**. Unused reconstituted vaccines kept beyond these limits should **not** be administered. Best practice is to reconstitute and draw up vaccines immediately before administration.

Events and Activities

7th International Bird Flu Conference

Dates: November 13-14, 2008

Location: New Fields Expedition, Las Vegas, NV
Visit the [Bird Flu Summit website](#) or email mdomingo@nfemail.com for more information.

American Public Health Association (APHA) 15th Annual Meeting and Exposition

Date: October 25-29, 2008

Location: San Diego Convention Center, San Diego, CA. For more information please go to <http://www.apha.org/meetings/>.

Part I - Comprehensive Coalition-Building Training Series

Dates: September 24-25, 2008; March 18-19, 2009; May 13, 2009

Location: Four Points by Sheraton BWI Airport Hotel, Baltimore, MD. For registration and information, go to http://edcp.org/pdf/Coalition_University_Registration_08-09.pdf.

Shots for Tots Immunization Conference

Dates: November 20-21, 2008

Location: JW Marriott New Orleans Hotel, New Orleans, LA. Email or call Gina Deris at gina.deris@charter.net or 504-838-5300.

Utah Scientific Vaccine Advisory Committee

Date: November 19, 2008, 8:00 a.m.

Location: Intermountain Medical Center (Main Hospital Building), Classrooms 7 & 8, 5121 South Cottonwood Street, Murray. Valet parking available. Call 801-538-9450 for more information.

Vaccinate & Vote

Date: November 4, 2008

Locations: Bear River, Davis, Weber/Morgan Counties. Call Mavis McAfee, Community Nursing Services, at 801-233-6214.

Coalition Meetings

Northern Utah Immunization Coalition

Date: October 7, 2008, 8:00 a.m.

Location: Weber-Morgan County Health Department, 477 23rd Street, Ogden. Call Carol Morrell at 435-752-3730 for more information.

Every Child By Two Immunization Coalition

Date: October 9, 2008, 10:00 a.m.

Location: Utah Department of Health, Room 114, 288 North 1460 West, Salt Lake City. Call 801-538-9450 for more information.

Greater Salt Lake Immunization Coalition

meets the second Wednesday of every month at 2001 South State Street, Suite S3800, Conference Room, Salt Lake City. Call Sally Dawson at 801-662-1621 for more information.

Southwest Immunization Coalition for Children

Date: October 14, 2008, 8:00 a.m.

Location: Southwest Utah Public Health Department, 620 South 400 East, St. George. Call Pat Thomas at 435-673-3528 for more information.

Utah Adult Immunization Coalition meets the fourth Wednesday of every month at HealthInsight, 348 East 4500 South, Salt Lake City at 8:00 a.m. Call 801-538-9450 for more information.

Utah County Immunization Coalition

Dates: October 7, 2008, 8:00 a.m.

Location: Health and Justice Building, Room 2804, 151 South University Avenue, Provo. Call Pauline Hartvigsen at 801-851-7027 for more information.

USIIS User Group Meetings

Northern Utah

Date: October 9, 2008, 12:00 p.m.

Location: Ogden Regional Medical Center, Oak Room, 5475 South 500 East, South Ogden

For more information regarding User Group meetings or to establish a User Group in your area, please contact Janel Jorgenson at 801-538-9991.

SPECIAL WELCOME!

The Utah Immunization Program is pleased to welcome Catherine Hamilton as the new Nurse Consultant and Perinatal Hepatitis B Coordinator. Contact her at 801-538-6298.





Utah Department of Health

IMMUNIZATION PROGRAM

Immunize for healthy lives

P.O. Box 142001
288 North 1460 West
Salt Lake City, UT 84114-2001

Return Service Requested



Check out our websites!

www.immunize-utah.org
www.usiis.org

Instructions to Return Non-viable Publicly-purchased (VFC) Vaccines

- ◆ Do **not** discard expired, spoiled or wasted VFC vaccines unless you have pre-drawn syringes or broken vials.
- ◆ Complete the *Vaccine Return and Transfer Form*. Fax a copy of the Return Form to the Utah Immunization Program at 801-538-9440. Enclose a copy with your shipment and keep a copy for your records.
- ◆ **If a returnable/recyclable McKesson vaccine shipper is available:**
 - Place vaccines and a copy of the Return Form inside the shipper.
 - Use packaging materials (i.e., bubble wrap) to prevent vial breakage. *Ice packs are not necessary.*
 - **Reverse the box flaps to show McKesson Specialty's prepaid return address label already affixed.** (See photo.)
 - Seal the box and place the shipment at a UPS pick-up location. Do **not** schedule a UPS pick-up. A pick-up can be scheduled by contacting the Utah Immunization Program at 801-538-9450.
- ◆ **If you do not have a McKesson shipper:**
 - Return the vaccines in the next shipper that arrives with your order.
 - Or mail the vaccines to:
McKesson Specialty Distribution
4853 Crumpler Road
Memphis, TN 38141
- ◆ Please do **not** ship expired vaccine to the Utah Department of Health.



Tip: Keep at least one shipper on hand in your office for vaccine returns, transfers, or emergency storage. Make sure to return all other McKesson shippers via UPS.